



Patent  
Attorney Docket No. 025219-439

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Florence MARCIACQ, et al.

Application No.: 10/731,857

Filing Date: December 9, 2003

Title: Process for Manufacturing Morpholino-Nucleotides, and Use Thereof for the Analysis of and Labelling of Nucleic Acid Sequences

Group Art Unit: Unassigned

Examiner: Unassigned

Confirmation No.: Unassigned

**FIRST  
INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a **FIRST** Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☒ No additional fee for submission of an IDS is required.
- ☐ The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge \_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the fee due.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

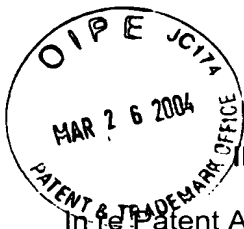
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Date: March 25, 2004

By

Joshua T. Elliott

Registration No. 43,603



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of )

Florence MARCIACQ, et al. )

Application No.: 10/731,857 )

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For: Process for Manufacturing Morpholino- )  
Nucleotides, and Use Thereof for the )  
Analysis of and Labelling of Nucleic )  
Acid Sequences )

Group Art Unit: Unassigned

Examiner: Unassigned

Confirmation No.: Unassigned

**FIRST INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

All of the listed documents were previously made of record in prior U.S. Patent Application No. 09/914,221, filed August 22, 2001, upon which Applicants rely for the benefits provided in 35 U.S.C. § 120. In accordance with 37 C.F.R. § 1.98, copies of the documents are not enclosed.

The Information Disclosure Statement is being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since the Information Disclosure Statement is being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date March 25, 2004

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**FIRST  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

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of

1

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Complete if Known

Application Number	10/731,857
Filing Date	December 9, 2003
First Named Inventor	Florence Marciacq, et al.
Examiner Name	Unassigned
Attorney Docket Number	025219-439

## U.S. PATENT DOCUMENTS

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	4,515,781		Torrence, et al.	05-07-1985
	5,721,341		Molko, et al.	02-24-1998
	5,849,482		Meyer, Jr., et al.	12-15-1998
	6,365,577		Iversen	04-02-2002

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	Translation	
					Yes	No
	93 10864		FR	09-13-1993		
	WO 95/07907		PCT	03-23-1995		
	WO 96/23807		PCT	08-08-1996		

## NON-PATENT LITERATURE DOCUMENTS

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Agrawal, S., et al., "Efficient Methods for Attaching Non-Radioactive Labels to the 5' Ends of Synthetic Oligodeoxyribonucleotides", Nucleic Acids Research, Vol. 14, No. 15: pages 6227-6245; 1986.
	Broker, T.R., et al., "Electron Microscopic Visualization of tRNA Genes with Ferritin-Avidin: Biotin Labels", Nucleic Acids Research, Vol. 5, No. 2: pages 363-385; 1978.
	Girault, Isabelle, et al., "Use of Morpholinonucleotides to Conjugate Oxidized DNA Bases to Proteins", Bioconjugate Chem., Vol. 7: pages 445-450; 1996, XP002121979.
	Hileman, R.E., et al., "Synthesis and Characterization of Conjugates Formed Between Periodate-Oxidized Ribonucleotides and Amine-Containing Fluorophores", Bioconjugate Chem., Vol. 5, No. 5: pages 436-444; 1994.
	Lundwig, J., et al., "Rapid and Efficient Synthesis of Nucleoside 5'-O-(1-Thiotriphosphates), 5'-Triphosphates and 2', 3'-Cyclophosphorothioates Using 2-Chloro-4H-1,3,2-benzodioxaphosphorin-4-one", Journal of Organic Chemistry, Vol. 54: pages 631-635; 1989.
	Prober, James M., et al., "A System for Rapid DNA Sequencing with Fluorescent Chain-Terminating Dideoxynucleotides", Science, Vol. 238: pages 336-341.
	Rayford, Richard, et al., "Reductive Alkylation with Oxidized Nucleotides: Use in Affinity Labeling or Affinity Chromatography", J. Biol. Chem, Vol. 260, No. 29: pages 15708-15713; 1985.
	Sanger, F., et al. "DNA Sequencing with Chain-Terminating Inhibitors", Proc. Natl. Acad. Sci. USA, Vol. 74, No. 12: pages 5463-5467; 1977, London.

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.